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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,007	07/09/2003	Johannes Willibrordus A. Overkamp	ACD2735US1	1024

7590 08/26/2004
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EXAMINER

KEYS, ROSALYND ANN

ART UNIT PAPER NUMBER

1621

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/616,007	OVERKAMP ET AL.	
	Examiner	Art Unit	
	Rosalynnd Keys	1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 10-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-16 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/686,785.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/16/03</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1621

DETAILED ACTION

Status of Claims

1. Claims 1-16 are pending.

Claims 1-9 are rejected.

Claims 10-16 are withdrawn from further consideration.

Election/Restrictions

2. Applicant's election without traverse of Group I, claims 1-9 in the reply filed on July 14, 2004 is acknowledged.

3. Claims 10-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on July 14, 2004.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Priority

5. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/686,785, filed on October 11, 2000.

Art Unit: 1621

Information Disclosure Statement

6. The information disclosure statement filed September 16, 2003 has been considered.

Specification

7. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: in the definition for R¹ and R⁴ of claim 1, the hydrocarbon group is disclosed as being mono-, di-, tri- or tetrasubstituted. However, the specification discloses the hydrocarbon group as being mono-, di-, tri- or tetravalent.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The instant claims are directed to preparing a peracid. However, R⁵ is disclosed as being selected from hydrogen or a mono- or disubstituted C₂-C₂₀ acyl group.

However, when R⁵ is a mono- or disubstituted C₂-C₂₀ acyl group then the product will be a diacylperoxide and not a peracid.

Art Unit: 1621

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reichert et al. (US 2,377,038) in view of Windholz (Journal of Organic Chemistry,

Art Unit: 1621

December 1958, Vol. 23, page 2044 and CAPLUS document) or Tarbell et al. (Journal of Organic Chemistry, March 1957, Vol. 22, pages 245-250 and CAPLUS document).

The instant claims are directed to preparing a peracid by reacting a mixed hydride of the claimed formulas with a hydrogen peroxide in the presence of a base. In claim 7 the base is limited to an alkali metal hydroxide. In claim 8 the pH is limited to being 4 or higher. In claim 9 the invention is limited to be conducted in the absence of an organic solvent.

Reichert et al. teach preparing a peracid by reacting an acid anhydride with an inorganic peroxide wherein the pH of the resulting peracid is carefully controlled (see entire disclosure). The acid anhydride is disclosed as including mixed anhydrides (see page 4, column 1, lines 67 and 68). The inorganic peroxide is preferably hydrogen peroxide (see page 3, column 1, lines 28-36). The alkalizing agent is disclosed as including caustic soda, sodium carbonate, sodium bicarbonate, tetrasodium pyrophosphate, trisodium phosphate, and ammonium hydroxide (see page 3, column 1, lines 36-41). The preferred base is sodium hydroxide (see page 4, col. 1, lines 15-38). The pH of the reaction is between 5.6 to 11.0 and in preferably 8.0 to 11.0 (see page 3, col. 2, lines 57-62). The reaction is carried out in the absence of an organic solvent (see entire disclosure, in particular the examples).

The instant claims differ from Reichert et al. in that the instant claims are directed to a mixed anhydride of a particular formula, whereas Reichert et al. broadly teach the use of a mixed anhydride.

However, mixed anhydrides of the instant invention are known and taught by Windholz and Tarbell).

One having ordinary skill in the art at the time the invention was made would have found it obvious to utilize the mixed anhydrides of either Windholz or Tarbell in the process of Reichert et al., since Reichert et al. teach that mixed anhydrides can be utilized as the acid anhydride of their invention and the acid anhydrides of Windholz and Tarbell were known at the time of the invention.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Silbert et al. teach a process for preparing peroxy acids by perhydrolysis of mixed anhydrides with highly concentrated hydrogen peroxide. However, unlike the instant invention Silbert et al. use methanesulfonic acid as a catalyst (see entire disclosure).


Sawada et al. teach preparing bis(trifluoroacetyl)peroxide by reacting trifluoroacetic anhydride with hydrogen peroxide in the presence of sodium carbonate and/or potassium carbonate (see attached English abstract). The instant invention is patentable over Sawada et al. because Sawada et al. do not utilize a mixed anhydride.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rosalyn Keys whose telephone number is 571-272-0639. The examiner can normally be reached on M, R and F 3:30-8:30 pm and T-W 5:30-10:30 am.

Art Unit: 1621

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Rosalind Keys
Primary Examiner
Art Unit 1621

August 13, 2004